## **REMARKS/ARGUMENTS**

Claims 1-10, 13-16, 18-24, 26-32, 34, 36-39 and 42-44 are pending in the application.

## Claim Rejections - 35 USC §103 - Yoshida and Nalbandian

Claims 1-10, 13-39 and 43-44 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (USPN 5,363,142) (hereinafter "Yoshida") in view of ITU-R Studies on Spectrum Management by Albert Nalbandian (hereinafter "Nalbandian"). The Applicant has amended claims 1, 5, 13, 19, 28, 43 and 44 to include the features of claims 17 and 25 and therefore are believed to be allowable. Further the Applicant has amended claim 32 to include features of claims 33 and 35, as well as additional features as described below.

Claim 1 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a television tuner including:

- a tuner software module to expose functionality of the tuner software module to an application program via an application programming interface and to find a particular frequency using:
  - a country table listing a plurality of countries; and
  - multiple channel-to-frequency mapping tables correlating channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency

mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country; and

• a tuning device to tune to *the found* particular frequency within the channel-to-frequency mapping table associated with the selected country upon selection of a corresponding channel.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 1 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 2-4 depend either directly or indirectly from claim 1 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 1, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 5 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites television tuning component for a television tuning system including:

- a tuner software module to expose functionality of the tuner software module to an application program via an application programming interface and to adjust the television tuning system using:
  - o a country table listing a plurality of countries; and
  - o multiple channel-to-frequency mapping tables correlating channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country and selection of a channel in the channel-to-frequency mapping table maps to a corresponding frequency.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 5 as amended is allowable over Yoshida and

Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 6-10 depend either directly or indirectly from claim 5 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 5, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 13 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a television tuning system including:

- tuner circuitry to tune to various television frequencies carrying television video signals;
- video decoder circuitry coupled to receive a television video signal from the tuner circuitry and to convert the television video signal to digital video data;
- a tuner module coupled to adjust the tuner circuitry to a particular television frequency, wherein the tuner module supports an application programming interface to expose functionality of the tuner module to an application program;
- a video decoder module to decode the digital video data according to a particular video standard;
- wherein the tuner module has a country table listing a plurality of countries
   and multiple channel-to-frequency mapping tables that provide video

standards and correlate channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country; and

wherein the tuner module selects a channel-to-frequency mapping table based upon input of a particular country and outputs a video standard to the video decoder for use in decoding the digital video data, the tuner module further selecting a television frequency from the selected channel-to-frequency mapping table based upon input of a corresponding channel and outputting the selected television frequency to the tuner circuitry to cause the tuner circuitry to tune to the selected television frequency.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 13 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 14-16 and 18 depend either directly or indirectly from claim 13 and are allowable as depending from an allowable base claim. These claims are also

allowable for their own recited features which, in combination with those recited in claim 13, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 19 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a television tuning manager for a television tuner, the television tuning manager being implemented in software stored on a computer-readable storage medium, the television tuning device including:

- a country table listing a plurality of countries;
- multiple channel-to-frequency mapping tables correlating channel
  numbers to corresponding frequencies for associated countries in the
  country table, the channel-to-frequency mapping tables being
  indexed by the country table so that selection of a country in the
  country table references an associated channel-to-frequency
  mapping table for the selected country;
- a code segment to select a channel-to-frequency mapping table based upon input of a particular country;
- a code segment to output a broadcast frequency from the selected channel-to-frequency mapping table based upon input of a corresponding channel; and
- an application programming interface configured to expose functionality of the television tuning manager to an application.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 19 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 20-24 depend either directly or indirectly from claim 19 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 19, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 26 recites an application program interface for a television tuning system, the application program interface being embodied on a computer-readable medium and having methods for performing the following functions:

setting a current TV channel;
retrieving the current TV channel;
setting a country code;
retrieving the country code;

setting a storage index for regional channel to frequency mappings; and retrieving the storage index.

Claim 27 recites an application program interface for a television tuning system, the application program interface being embodied on a computer-readable medium and having methods for performing the following functions:

retrieving all analog video TV standards supported by the tuning system;

retrieving a current analog video TV standard in use;

setting a current TV channel;

retrieving the current TV channel;

retrieving highest and lowest channels available;

scanning for a precise signal on the current TV channel's frequency;

setting a country code;

retrieving the country code;

setting a storage index for regional channel to frequency mappings;

retrieving the storage index;

retrieving a number of TV sources plugged into the tuning system;

setting a type of tuning system;

retrieving the type of tuning system;

retrieving a current video frequency; and

retrieving a current audio frequency.

As previously described, neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly,

claims 26 and 27 are allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claim 28 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a method comprising:

- executing a software module configured to
  - expose functionality of the software module to an application via an application programming interface;
  - o receive an ITU (International Telecommunications Union) code for a particular country; and
  - o select, based on the ITU code, a set of TV channel-to-TV frequency mappings for use in the particular country.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 28 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 29-31 depend either directly or indirectly from claim 28 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited

in claim 28, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 32 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a method comprising:

receiving a reference to a country;

selecting, based on the country reference, a set of channel-to-frequency mappings correlating channels to corresponding TV frequencies in the *country* and a television standard;

receiving a channel;

selecting, based on the channel, a TV frequency that maps to the channel sending the frequency to the tuner circuitry;

tuning to the frequency to receive a television signal carried by the channel;

converting the television signal to digital video data; and
decoding the digital video data at the video decoder software module
using the television standard received in the tuning packet.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found at originally filed claims 33 and 35 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest "sending", "tuning", "converting" and "decoding" as recited in claim 32. Accordingly, claim 32 as amended is allowable over Yoshida

and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claims 34 and 36-39 depend either directly or indirectly from claim 32 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 32, are neither shown nor suggested in the references of record, either singly or in combination with one another.

Claim 43 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites a tuning system comprising:

- a tuner software module configured to expose functionality of the tuner software module to an application program via an application programming interface and to find a particular frequency using:
  - o a country table listing a plurality of countries; and,
  - o multiple channel-to-frequency mapping tables correlating channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country, and wherein said *tuner software module* adjusts to a particular video standard based on a selected

channel from one of the multiple channel-to-frequency mapping tables.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 43 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

Claim 44 has been amended and, as amended (portions of the amendment appear in bold/italics below) recites one or more computer-readable media having computer readable instructions thereon which, when executed by a computer, cause the computer to:

expose functionality of the computer readable instructions to an application program via an application programming interface;

receive data regarding a selected country;

map to channels available for the selected country;

receive data regarding a selected channel;

map to an appropriate video standard based on at least one of the selected country and selected channel; and,

format a tuning component to the appropriate video standard.

Support for the amendment may be found throughout the specification and drawings as filed, an example of which may be found on page 13 and originally filed claims 17 and 25 of the subject application. Neither Yoshida nor Nalbandian, alone or in combination, teach or suggest these features. In particular, neither Yoshida nor Nalbandian teach or suggest an application programming interface. Accordingly, claim 44 as amended is allowable over Yoshida and Nalbandian, alone or in combination, and withdrawal of the rejection is respectfully requested.

## **CONCLUSION**

Claims 1-10, 13-16, 18-24, 26-32, 34, 36-39 and 42-44 are in condition for allowance. Applicant respectfully requests the issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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